

MICHIGAN



FARMER,

AND WESTERN HORTICULTURIST.

"AGRICULTURE IS THE NOBLEST, AS IT IS THE MOST NATURAL PURSUIT OF MAN."

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Breaking Young Cattle.

It is sport, rare sport, for boys to yoke young steers, and fret them, till they are tame; to whip them hard for obstinacy—for moving too fast or too slow. Boys will teach them a bushel of tricks sooner than a peck of good manners. Boys must not handle steers till they have been handled by men; and men have not all philosophy enough to make steers kind and obedient.

There is not so much risk run in breaking steers as in tutoring colts. The ox is so patient he will "endure all things," even ill tutoring. In the yoke, in the centre of a strong team, he must go, will ye, nil ye, and in time he will think it prudent to draw a moderate load rather than feel the lash or the goad.

But what a vast difference you find between oxen that have been properly broken, and such as have loosely "borne the yoke in their youth," and had their own way at a hill or in the mire. Can they back a loaded cart, or will they know your voice at the plow?

Ill-tutored oxen will fail you in your utmost need. They never draw even, and one is not ready to put forth his strength till his yoke-fellow has exhausted all his store. Then you leave your loaded sled in the woods and go for the mare, or you unlade a part, and hie home in a pet.

Oxen should never know but that they can draw any load you put them to, and they will never suspect it under a perfect teamster. He will never let them draw when he finds the load quite too heavy, and by crying out to them to stop, when they cannot go, he persuades them that they are stopped by his command alone.

Steers may be yoked at a very early age.—When it is convenient, shut them up in a shed or strong pen, and gently place a light yoke on them there. Do not attempt to force them to march now, but wait till they have become used to this burthen. Feed them with something a little better than every day fodder, and satisfy them that you intend no harm. If your shed is large, it will be prudent to pass a rope around the hind part of their bodies, to prevent their turning their yoke upside down, and making the near one the off ox. A rope will prevent this, for it will keep their hips as near to each other as their necks are. Some tie their tails together for this purpose, but a rope is better.

When your steers have become a little used to the yoke, you can put a chain on, and let them be used to the clanking of the links. Chain them fast to a post in your shed, and let them feel that

this front chain and the yoke are stronger than they are. They may stand for half a day chained fast, and you need to look to them only occasionally.

Now you should unyoke them gently, and let them have their liberty evidently by your own consent. On the morrow, yoke them again in the same place, and with the same care. Then yoke up your oxen, and driving to the shed, make fast your steers to the oxen instead of the post. Let the whole four stand awhile, that the steers may see no harm is intended.

Soon you may urge them forward close after the oxen, and without using a whip. Let them follow round and round the yard, chained to the oxen, never putting them to draw till they have learned to follow without fear.

After this exercise, you can bring a light sled, or a pair of wagon wheels and tongue, and gently fasten your steers on this tongue. Let all stand a few minutes; then move forward gently, not to terrify the young fellows too much on finding a moving pole between them, and a pair of rolling wheels behind. Keep them in gear four or five hours to-day, having a rope on the horn of the nigh one, to make both follow directly after the oxen.

In this way you can use your steers to follow your oxen without striking a single blow. For the only cause of obstinacy which we so often find in steers, is ignorance and fear. They know not what you would have—they fear giving offence, and they will prefer your lashing and beating to any motion they can make. You know this is the case—for, unyoked, you can drive one or two, or a dozen, and no one thinks it advisable to stand and endure the lash in preference to moving.

But you must teach your steers to lead as well as to follow your oxen. This requires skill, to prevent bad habits. When first put to lead, they will incline to run from you, unless you have a rope on the near horn. But you will soon habituate them, if you avoid beating, to march straight forward; and they will suffer you to advance and come to their heads, without attempting to sheer off, if they find you friendly. In a snow path you will find it more easy to make them tractable, than in a plow field.

It is quite important that young cattle should be loaded so light that they can overcome all obstructions without great effort. They should not suspect that any load can stop them. If they have not been set, and whipped, and bothered, by vicious teamsters, you will find them ambitious to do all in their power for you on rising a hill, or in miry carting. You will command their whole strength without striking a blow, and you will be more sure of getting out of the mire than by the use of all the whips you can command.

But your cattle will not go—nor will they stop when you desire, unless you use good language to them; not Greek, or Latin, or Hebrew—but good plain English. You may use the Hebrew well enough, provided you understand it, and provided you alone are to be the driver. But if you do not, or if you intend that others, who know nothing but English, shall drive your oxen occasionally, you will find the "English Tongue" the "Only Sure Guide," as Perry said of his spelling book, when it treated of that tongue.

Those who have heard the language of various drivers, will not think this an unimportant rule. Oxen must be more knowing than lads in Greek,

to get a clear idea from the sounds made in their ears by their uncivil drivers. The same rignarole, harum scarum, hi, hoi, whoi, who-hay, is used, whether the team is to move or to stop—to haw or to gee—to keep quick time, or to back the load; and the astonished ox—the native ox—must wait till the goad quickens his ideas, or till the butt-end of the handle on his nose, has planted the seed for a wen, to disfigure his face, cause him pain, and shorten his life.

Should not the doctrine of transmigration be taught to cruel masters? Who would thus abuse an ox, if he himself is to take his turn in the yoke and under the goadstick.—Ploughman.

LIME.—The analysis of soils, in a certain sense, and with a view to certain special objects, is far from worthless or deserving of neglect.—One soil, by an easy examination, is found to be deficient in organic matter, and the advice may be—try the plowing in of a green crop; another may contain much vegetable matter in what is called an inert state—try upon that a dressing of hot lime; a third may contain sulphate of iron and alumina—drain deep, plough, lime or marl, and summer-fallow such land, and you take the shortest road towards a cure. Again, one may ask, why does not lime benefit my land? An easy analysis will reply, because it abounds in lime already, and must have a season of rest from liming; or because it is poor in organic matter and requires more liberal supplies of manure—or, if neither of these is the case, because your land requires draining. So the subsoil may be yellow and noxious when brought to the surface, or may kill the roots of the plants when they descend to it. Then a simple examination may prescribe draining and subsoiling, that the noxious matter may be washed out by the rains, and the whole mellowed by the admission of air. Or it may be rich in lime, which has sunk from the surface, and after frequent liming has produced a real marl bed beneath—and here the chemist may say, plow your land deep, and bring up the marl, and thus save the coat of lime for a season at least.—*Journal of Agriculture.*

CARE OF YOUNG STOCK.—The first winter for young stock is the most trying one of their lives, and extra care should always be given to them, especially in their feed. In addition to what they will eat of the finest and best of the hay, lambs and calves should have a few roots daily, except in very cold weather. In feeding them, be careful not to give so many as to scour them. It may be well, also, to feed the lambs a gill each per day of beans, peas, oats, or corn, which are preferred in the order mentioned. For calves, shorts or bran is preferable to grain.—Colts ought to have two quarts of oats per day, except occasionally changing this food to three quarts of bran. Oil meal is most excellent food, in small quantities, for all sorts of stock, especially calves and pigs. It keeps the bowels free and healthy, and makes them eat their other food with a greater relish. Young stock ought always to be sheltered by themselves: they then escape injury from those more grown, and have a fair chance at their food. Colts must not stand upon a plank floor, or, indeed, a hard footing of any kind, the first winter; if they do, it is apt to give them the ring-bone. Their pastern joints are disproportionately weak during the first year, which makes an elastic footing requisite for them.—*American Agriculturist.*

Native Stock.

The principle seems to be very generally recognized, that most cattle degenerate with a change of climate. In examining the statistics and general state of British husbandry at the present day, we shall find that almost every county in that kingdom, has its peculiar stock. This appears, in most instances, to be the original or "native" stock of the country, improved by judicious selection, or by crosses. So highly esteemed, indeed, is acclimation, that no judicious and discriminating breeder is ever found willing to discard the native stock, but rather prefers it as a *basis* on which to build. Few who are not familiar with the operation of the principles of breeding, as there recognized, can be aware how vast an improvement they are, in a short time, competent to effect. In our own country, cattle raising has never received the attention it deserves. While a few enlightened and enterprising individuals here and there have interested themselves benevolently in "building up," and improving, either by following the rules prescribed, by their transatlantic brethren, or by the importation of blood stock from abroad, the stock of a particular locality—the great mass of our farmers have remained comparatively indifferent as to the result of their efforts, and disposed—so tenaciously rooted are certain *old prejudices*—rather to ridicule than approve. Every one is probably aware that so far as the production of good stock is concerned, the farmers of New England are not so much in want of material, as of information and discernment respecting breeders. Our native stock, in its pure state, is peculiarly active and hardy; it has all the benefits of thorough acclimation, and is to the full as capable of symmetrical development, under a judicious and radical system of breeding, as the Durham, the Hereford, or the Devon. There are certain distinctive traits, or points of form with which the experienced breeder associates, correctly, the qualities of activity and vigor in the ox; others which denote the presence of a lactescent propensity in the cow, and others again which bespeak a capacity to convert food into fat. Each of these marks are distinctly impressed, and as incapable of misconstruction by the eye of the experienced observer, as though the several characters they denote or symbolize were written on the animal's hide. It is, however, of little avail that we select our best animals for breeders so long as we persist in the old practice of selecting the best of their offspring for market. This is an error that we wish greatly to see reformed. There is a degree of inconsistency in it utterly incompatible with the character of the age.—*Maine Cultivator*.

REMARKS.

Michigan cannot, as yet, be said to have a distinctive breed of cattle. They have been chiefly furnished us originally in droves from our good neighbors farther south, and they have been such as they have been pleased to send. No doubt there have been among them many good animals—but it would be an imputation on the sagacity of the farmers of Ohio and Indiana, to suppose that they have furnished us their best. No intelligent farmer will deny that our breed of cattle admits of, and requires great improvement—and it is a subject well worthy of consideration, how this end can be best accomplished.

One obvious method is, a careful selection of the best animals from which to breed. It has hitherto been to a great extent the practice of our farmers, to rear their colors promiscuously, without regard to the qualities of the stock from which they sprung; provided only they were healthy and vigorous. This course was rendered necessary in many cases, for a few years subsequent to 1836, by the scarcity of cattle. But now that the State is in a good degree supplied, the necessity of a rapid increase no longer exists, and farmers would doubtless find their account

in rearing no calves but those from their best cows: and those who are not supplied with good stock to begin with, would be amply repaid for their trouble, if they would make some effort, and be at some expense to procure it.

Every one knows the general law of nature, that the qualities of the parent are transmitted to their offspring. If, then, a farmer wishes to rear good draft oxen, he should select animals to rear from, with such points, as are desirable in beasts for draft. If for the dairy, he will choose the best milkers, both as to quality and quantity.

It seems probable that for those who can afford the expense, the shortest and most effectual mode of improving our "native stock," would be a cross with the Durham, for the dairy; or with the Hereford, or Devon, for laboring beasts—and if so, our more wealthy agriculturists would confer a benefit on their neighbors, and benefit themselves, by importing more of these animals from the older States.

Our observations on such a cross have not been extensive enough to enable us to decide as to its advantages here. We should be pleased if some of our patrons would give us their opinions and experience in this matter.

Ours is not, it is true, extensively a grazing State. But still, since the profit derived from a good animal is double that from a poor one, there is no good reason why the stock we do raise, should not be carefully selected and improved.—Besides, we hope to convince our friends, hereafter, that it is better policy to turn their attention to this department of farming, more than has yet been practised.

Purchasing Butter.

"Is your butter good?" said I to the farmer.

"Good! my wife has made butter these twenty years, and I should think she ought to know how to make good butter by this time."

He was evidently offended.

"Well, let us examine it." The cover was taken off the tub, the clean white cloth, (which had been wet in brine,) rolled up, and the yellow treasure revealed. It certainly did look good.

"It tastes sweet; but how very salt it is."

"We always make our butter salt to have it keep at this season."

"Let us see if the buttermilk is as well worked out as the salt is in."

Some of the rolls were pressed down with the ladle.

"Now, my friend, if your wife has made butter these twenty years, she does not know how to make good butter; for no butter can be good until the buttermilk is worked out. If that is done, you need not salt it so *bad* to have it keep *well* in any place. A very little more care and labor would have made this excellent butter; but lacking that little, it is only a second quality—as you shall acknowledge when I show a sample of good butter."

We went in and took up a roll from a crock of first rate butter. It was smooth, clear, and handsome; the hand of woman had not been on it from the time it left the churn until now; all the work had been done with the ladle.

"If you will get one drop of buttermilk from that butter, you shall have the whole free."

"Now, taste this, and taste your own, and say, honestly, if you would not give a higher price for this than your own. Look at it—see how clear and transparent these minute globules

are, and how intimately they are blended with the whole mass. Until those all disappear the butter will keep sweet; and no butter will keep long when they are ever so slightly colored by the milk."

The farmer simply remarked, that there was a difference in all butter, and left, to find a less critical or more ready customer.

It is strange that when every body loves good butter, and is willing to pay for it, our farmers' wives and daughters do not take pains to make a better article. It is the women's fault that we have poor butter, generally, and we must hold them responsible. It is perfectly easy to make good butter. The only requisite is *care*. Good butter will always command a good price in the dullest market, while poor butter is a drug at any price.

When any of my lady readers make butter again, just let them imagine that I am to have a nice bit of bread and butter with them, and that I shall detect the least particle of milk, and am not fond of too much salt.—*New Gen. Farmer*.

Keep your Pigs Warm.

Pigs cannot be kept through our long cold winters with advantage, unless they are warm, dry, and comfortable. If they are exposed to cold, wet, and filth they must inevitably consume a great deal of food just to keep them alive, and as they will not gain under such unfavorable circumstances, there is a loss of all the food they consume, unless we reckon the advantage of having a pound of live flesh in the spring for one in the fall, and this is by no means a profit worthy of much consideration, as the prices usually are in the market.

The same food that will barely winter a pig with poor management, will keep him in a thriving condition in a good warm shelter, and the difference in the two modes of management is a mere trifle, while the difference in the result is important. The same difference that there is in spring between a large sleek growing pig, and a poor, stunted, wretched looking creature that is hardly fit for a foundation to build upon, as he will have become stationary as to growth, and sometime will be required to get him started again in the progress of improvement.

Pigs should have a bed of straw or litter to sleep in that is not only warm but free from filth, and in such comfortable quarters they will spend much of their time in quiet and repose, and thrive well on a moderate portion of food, if it be well cooked and fed to them warm. Besides their usual food they should have condiments to keep them in a healthy state, such as charcoal, rotten wood, pure live earth, if they cannot conveniently root down to it, and now and then a small dose of brimstone and antimony.

If pigs are generally kept on cooked food, they should occasionally have a few raw potatoes and other roots, apples &c., for a change. During winter their beds should be replenished whenever a deficiency occurs from a waste of other cause, as such frail materials soon wear out and mingle with the dust. If pigs be confined to a pen, the manure should be removed, else a large accumulation will injure the health of the animals from the filth that will constantly adhere to them. Though the pig is regarded as a dirty animal from his constantly running his nose into mire and dirt, yet he is very partial to neat dry quarters for a resting place, after the various maneuvers

with his proboscis in search of food or condiment, and for the laudible purpose of healthy exercise.—*Boston Cultivator.*

Farming Implements.

The remark we have somewhere met with, and it is very probably true, that the arts and sciences have made greater advances within the last half century, than in the eighteen centuries preceding. Among other improvements, those which have been made in the implements of husbandry are very great, and they are still in rapid progress. There is scarcely an implement used by the farmer forty years ago that is not now more or less improved in its model and construction, and a great many new and almost invaluable implements have been added. These improvements not only abridge manual labor to a highly important extent, but they enable the farmer to do his work better. A number of examples in point might be given, but we need only mention the improved plough and harrow, the cotton gin, &c. It is manifest that the community of farmers in which improved agricultural implements are introduced and employed, enjoys decided advantages over that in which the old, unwieldy, inconvenient implements are still made use of. The one is supplied with a certain ready force and a skill in mere machinery, which the other must supply (if supplied at all) with increased wear and waste of human sinews.—There is, perhaps, nothing, therefore, so well calculated to promote the agricultural prosperity and increase the agricultural wealth of a country, as the introduction of improved implements of husbandry.

We would respectfully suggest to our Agricultural Societies, generally, to give something more of their attention to this subject. Premiums are not so frequently offered as we should be pleased to see, for the best ploughs, best harrows, clover machines, hemp knives, corn crushers, &c. In the Northern States, this branch of improvement has not been overlooked, but in some of the New England States, great emulation has been excited in the way of agricultural mechanics, by the liberal premiums of Societies, and the patriotic energies of individual agriculturists. The consequence, is, a very decided improvement in all farmers' tools, and none more than the plough, with which regular tests are made in ploughing matches, superintended by society organizations.—*Southern Cultivator.*

CHINESE AGRICULTURE.—We passed the batteries which had so recently been the scene of such dreadful slaughter, and stemming a strong current, proceeded rapidly up the river. The country through which it wends its way was a perfect flat as far as the eye could reach, and in as high a state of cultivation as the market gardens around London. Small farm houses stood in every direction, neatly encircled with flower gardens, the whole presenting a perfect picture of wealth, fertility, industry, and comfort; and when we were informed (a circumstance we had every reason to believe perfectly true) that the same state of things existed, not only throughout the whole of this, but of all the neighboring provinces, any one of which, as regards extent, would make a handsome kingdom for a European potentate, some slight idea may be formed of the endless internal agricultural wealth of the Chinese Empire, and the little concern the Emperor of this mighty country has been accustomed to bestow on foreign nations, their commerce, trade, or any thing else concerning them. Numerous implements of agriculture, which we supposed only to be known to the most scientific and highly instructed European nations, were discovered in great numbers, and in constant use among them, from the plough and common harrow to the winnow and threshing machine, with which scarcely any farm house, however small, was unprovided. Added to which, for the purpose of irrigation, scarcely any considerable field that did not possess its chain pump, for the purpose of irrigating their crops by drawing water from the lower levels, with comparatively small labor to themselves; from which models I have not the least doubt those at present in use in our navy or merchantmen were taken.—*Selected.*

Book Farming—A Fact.

"I want to know if you believe in this book farming," said a neighbor, as he walked into the room where I sat, reading the *Cultivator*.

"Be sure I do," was the reply.

"Well, I don't; I never took an agricultural paper in my life. There is B. S. of W—, who came into this country fifteen years ago, and had to buy fifty acres of land on credit. He has cleared that up, and added from time to time, till he now owns two hundred acres—has good buildings, and money at interest. He always has good crops. He has averaged twenty-five bushels of wheat for several years; it is the same with all his other crops—while his neighbor E. W. has not raised more than seven bushels of wheat to the acre, and some of his other crops he never harvests. I would give more for the experience of B. S. than for all the book farming, and farming by rule in the world."

"Very well, sir, now let me have a word.—This 'experience' of B. S. of which you speak, (i. e., the method he adopts to raise twenty-five where his neighbor raises seven bushels of wheat, and other crops in proportion,) if written out and published, would be the very essence of book farming, which you so much despise, and might benefit others as well as you. And then, secondly, I know this B. S. also, and it gives me pleasure to inform you that he is a regular subscriber to, and constant reader of, three standard agricultural papers—the '*Cultivator*,' the '*New Genesee Farmer*,' and the '*Western Farmer*,' while this same E. W. will not have an agricultural paper in his house, partly because he does not 'believe in book farming,' and partly because he cannot afford to take such a paper."

Here the man suddenly recollected his errand, which was to borrow an improved harrow, a plan of which I had found in my paper, and which he was pleased to say, "did the work so much better than mine," (his)—so the subject was dropped. I intend to speak to him again, ere long.—*Albany Cultivator.* II.

TREATMENT OF YOUNG STOCK.—Some experience and much observation have convinced me, that one of the most common errors into which farmers fall, is in neglecting their young stock. Many farmers are in the practice of turning off their young stock on the poorest food. This is not right; for if ever animals require the best of food and plenty of it, it is when they are young and growing. They will not grow into good shape or size, if half starved or stinted of their food. I have heard some farmers boast of the small quantity of food on which they had carried their stock through the winter. Our pride would be to see how well we could carry them through the winter. "An animal well wintered is half summered." One good cow full fed, is worth more than three half starved ones. I am aware that high feeding of milch cows on grain, is not generally believed to be profitable, but I am satisfied that by feeding them on roots in the winter, the cows would give milk nearly the whole year, and their calves would be much more valuable. If cows are allowed to fall very low during the winter, in vain shall we hope to obtain an abundant supply of milk by bringing them into high condition in the summer; for if a cow be lean at the time of calving, no management afterwards will ever bring her to yield any thing like the quantity of milk that she would have done, had she been all the winter in a high condition.—*Bement's Address.*

Cotton Beds.

We have received from J. A. GUERNSEY, Esq., a copy of the "*Southron*," published at Jackson, Miss., containing some remarks on the advantages of cotton for bedding. These advantages may be summed up as follows. It is claimed that "it is the cheapest, most comfortable, and most healthy material for bedding, that is known to the civilized world." In addition to these, may be named, "superior cleanliness—vermin will not abide it—there is no grease in it—it does not get stale, and acquire an unpleasant odor as feathers do—moths do not infest it, as they do wool—it does not pack and become hard, as moss

does—nor does it become dry, brittle, and dusty, as do straw or husks—and it is in many cases medicinal." It is said not to cause that lassitude and inertia, which is produced by sleeping on feathers. People not acquainted with it, have supposed that they were sleeping on the best feathers, when in fact their beds were made of cotton. The relative cost of cotton, compared with feathers, hair, &c., may be seen from the following statement:

"**Cost of a Hair Mattress.**—They are generally sold by the pound, and cost from 50 to 75 cents per lb., 30 or 40 lbs. will cost \$15 or \$20.

"**Wool.**—30 lbs. wool, at 30 cents per lb., \$9; 12 yards ticking, at 12½ cents per yard, \$1 50; labor, thread, &c., \$2 75. Total \$13 25.

"**Feathers.**—40 lbs. at 30 cents per pound, \$12 00; 15 yards ticking, at 12½ cents per yard, \$1 87½; labor, thread, &c., \$2 75. Total, \$16 62½.

"**Cotton.**—30 lbs. cotton at 3 cents per pound, \$2 40; 12 yards ticking at 12½ cents per yard, \$1 50; labor, thread, &c., \$2 75. Total, \$6 65."

It is recommended to run the cotton through a "picker," where one can be conveniently obtained, before using. This gives it additional cleanliness and buoyancy.

The substitution of cotton for bedding throughout the United States, would be an immense saving, besides opening a new avenue for that article to an extent according to the estimation of this writer, equal "to more than two of the largest crops of cotton ever produced in the United States."—*Albany Cultivator.*

Will Farming Pay Expenses?

MESSRS. EDITORS:—I was yesterday introduced to a small shopkeeper, who cites himself a living witness, that "Farming will not pay expenses;" pointing to his own failure as proof of the doctrine, that it takes "a quarter of a dollar to realize 20 cents." On leaving his house, a friend remarked, "Poor M. is indeed a living witness of the truth of that adage, 'you can't get something for nothing.' He started upon the starvation principle, that land would not pay for good management; he therefore kept no help during the winter, selling all the crop and buying no manure: keeping no stock, as they would require attendance; ploughing nothing under, that could be removed to market, and destroying no weeds, as he too, considered, that 'a few of them would pay a dollar a day for pulling;' his axiom being, the less of capital and science there is expended in farming, the greater will be the profit: but poor man, he soon came out sleek and straight at the little end of the horn, believing, of necessity, that all others must do the same, and truly he has proved that land will never pay for bad management, whatever it might do for good; his wife having always made more by the sale of the poultry than he could do by that of the crops."—*Bost Cult.*

Care of Peach Trees in Winter.

If there is a fall of snow, take a shovel and pile the snow around the tree, treading it well, two or three feet in height. Then cover it lightly with carpenter's shavings or straw, of light color, just so as to keep the sun from melting the snow as long time as possible. A few pieces of board will answer nearly as well as shavings or straw. If there should not be sufficient snow, and the ground freezes to a considerable depth, it may answer the same purpose, if you place something of the kind on the south side of the roots of the tree. A little labor in this way may prevent the injury that in this climate so often results from a few days of untimely hot weather during the latter part of winter; and as a reward you may be able to luxuriate on fine peaches next summer while your less thoughtful neighbors are destitute.

Napoleon was persevering, Hannibal was patient and energetic—but 'twas reserved for Washington to blend them into one, and he was—a farmer.

MICHIGAN FARMER.

JACKSON, FEBRUARY 1, 1845.

WE take pleasure in announcing to our readers that the services of HENRY HURLBUR, Esq., a practical and theoretical farmer, have been engaged as Editor of this paper. We are the more gratified in making this announcement because of the fact that Mr. HURLBUR is in every respect qualified for the station in which he is placed. His experience as an agriculturist, and his acquirements as a scientific gentleman, are high guarantees that the "Farmer" will hereafter be what is much to be desired, a work of decided utility.

With this acquisition to the pages of the "Farmer," and the great improvement which is shortly to take place in the mechanical execution of the work, we will not permit ourselves to doubt that our subscription list will be greatly increased.

Change of System in Farming.

Nothing, we are persuaded, is more necessary to the prosperity of agriculture in this State, than a change of system in the crops produced. The method now generally pursued is to keep the whole, or a large portion of the cultivated land under the plough, year after year, without any rest other than is afforded by now and then a naked summer-fallow. We know many farms which have been treated in this way ever since they were first broken up—during a period of six, eight, and even ten years. Such a system of farming is at least fifteen years behind the times. It is in direct contravention to every scientific principle connected with the tillage of the soil. In some cases the same crop, as wheat for instance, has been raised on the same fields for several years in succession.—Farmers who do this, seem not to be aware that by taking in this way the same kind of material from the soil, to produce the straw and berry of the crop, they are exhausting the soil rapidly of that material. Every kind of grain exhausts the soil of certain portions of its ingredients, and each kind of something different from another. This is ascertained with perfect certainty, by the analysis of the straw and berry of the different grains by scientific men. They are found to contain certain ingredients which are also constituents of the soil in which they grew, and which must have been derived therefrom. Of course the continued production of the same kind of crop on the same soil, tends to unfit the land for the production of that crop. This is especially true of what are sometimes denominated the white crops, such as wheat, oats, &c., which derive their growth largely from the soil, and applies less to such a crop as corn, and some root crops, which draw their sustenance in greater degree from the air. But the objection applies in a greater or less degree, to the continued production on the same land of any crop. A proper rotation is much better.

But although this will effect much towards causing land to retain its productiveness, no plan is so good for this purpose as to seed down land, and rear the cultivated grasses. This, with its natural accompaniment, the keeping of more stock, sheep and cattle, is the true way to keep up and increase the fertility of our lands. The God of nature has favored our State with, generally speaking, a very favorable mixture of soil—neither too heavy nor too light. But he has not given it such exuberant fertility, as to bear continued cropping and skinning, without the most injurious effects. It has sufficient richness to begin with; but it needs rather working up than working down; and this will always be found to be much the most profitable course. Let our farmers begin early with the plan of seeding down, turning under green crops, husbanding carefully the manures of the barn yard, and applying them to the land early in the spring, and practicing a judicious rotation of crops, and they will never have to go through the expensive process of recruiting worn-out lands.

Let us not be thought inconsiderate or unaware of the peculiar difficulties under which many of the farmers of our State have labored. Emigrating hither when provisions, and all necessities of life, were very dear, by the time their farms were so far improved as to furnish some surplus for market, they found their means pretty much exhausted, and in many instances were encumbered with debt. Then came the fall in the price of products; then the ravages of the wheat insect, and thus many have been sorely tasked to make the ends of the year meet, who have been by no means deficient in industry or prudent management. And it has seemed necessary to them to keep all their land under the plough, so as to raise the greatest possible amount of produce to support their families and pay off their debts. Many have done so, who knew that the course they were pursuing was bad farming, and who intended to manage differently as soon as they could. But, our impression is, that this course has been generally pursued longer than true policy required, even considering duly the necessity of the times. Our wheat crop, which has been so generally relied on, has proved a somewhat uncertain dependence, and so have other grains; and these failing, the only resource was cut off. Now if less exclusive reliance were placed upon these, and a smaller portion of land cultivated with them—only so much as could be manured or be raised upon sward land, or on a clover lay, would not the probability of a good crop even of these be greatly enhanced? While in the event of their failure, the stock and hay produced by such a course of farming would furnish something to fall back upon.

We make these remarks preparatory to a suggestion which we wish to urge upon farmers, and that is, before the products of last year's harvest shall be quite exhausted, to furnish themselves with clover and timothy seed—especially the former. There is no harm in being reasonable about it. Let every farmer who values his best interests, and has land that has been cultivated as many as three or four years, procure some, if it be but little, and determine to make a beginning next spring—if it be only by sowing a small piece, from which another year he may raise his own seed.

Great care should, however, be used in the selection of seed, to prevent the importation of any of those noxious weeds which prove such a pest to the agriculture of the older states, and from which ours is as yet happily so nearly exempt. It is safer where it can be done to procure the seed from among ourselves where we know it will be clean.

We understand that an enterprising citizen of this (Jackson) county, has brought in from Ohio some fifty or sixty bushels of clover seed, which he sells to those who want it. We rejoice at this, and hope his example will be followed by others in various parts of the State, who have no objection to confer a favor on the community, while they benefit themselves. We trust they will find a plenty of purchasers for so useful an article, and that the result will be, that the pleasant sight and fragrance of fields of clover will greet the senses of the traveller through our pleasant peninsula much more frequently than heretofore.

Transplanting Trees in Winter.

This may seem a singular time of year to transplant trees; but we have heard of a method which is perfectly feasible, and which seems to us to be an excellent one for those who may wish to set out trees of too large a size to be safely taken up in the spring or fall. An open winter, like the present, is favorable for it.

Select a time when the ground is frozen as far down as the principal part of the roots, and cut with an old axe or grubbing hoe, a circle, at such a distance from the tree as to preserve most of the lateral roots entire. When you have cut fairly below the frost on all sides, pry up the mass of frozen earth, tree and all, and place it in a hole previously prepared, large enough to receive it. In the spring, when the tree shall have

waked up from its long sleep to renewed life, it will find itself in the same earth in which it before stood, nearly all its roots preserved, and the small fibers, each ready to draw its accustomed nourishment from the ground. It will thus be quite unconscious of the operation which has been performed.

Those of us who have longed, as many have, for the abundance of fruit enjoyed in the longer settled portions of our country, will not mind a little extra trouble, to enjoy at once the luxury of at least one tree bearing fruit, near their own door; and in many instances such trees may be purchased at a fair equivalent.

THE HOLLOW HORN.—Within a few days we have heard several farmers from the surrounding country complain that their cattle have the hollow horn. We have had a little experience in the management of cattle, and knew something about this hollow horn, and are satisfied that it is nothing more nor less than an attendant, a sort of hollow belly. We know of men who have cattle that during the whole winter have been exposed to the pitiless peltings of the storm, with a snow-drift or an ice-cake for a bed, with nothing but a scanty pittance of prairie hay or musty straw for food, and who now wonder that their cattle have the hollow horn! The wonder should be that they have cattle living.—*Ind. Sentinel.*

The above pithy remarks upon a disease quite too prevalent among our cattle, are well worthy of the attention of farmers. Our experience leads us fully to concur with the above as to the cause of the disease—for we never knew cattle that had been well fed, properly sheltered, and moderately worked, to have it. Its victims are most commonly old oxen, which, having gone through the severe labor of a breaking up team upon our openings, during the fore part of the season, and then that of putting in the crop of wheat, begin the winter in rather poor plight—and then having little to subsist upon but marsh hay and straw, and being insufficiently protected from the storms of winter, are fit subjects of disease. The same causes sometimes produce it in young cattle. The common remedy is, to bore the horns of the animal, and inject a mixture of pepper, salt, and vinegar. This creates an irritation, and probably tends to increase the languid circulation of the part. But the expediency of this method seems rather questionable; if resorted to, care should be taken to close up the hole, to exclude the cold air. A better course would probably be that mentioned in one of our exchange papers, to wrap the horns with flannel, and thus afford the warmth necessary to keep the disease from progressing to a fatal termination. The presence of the disease, it is well known, may be ascertained simply by feeling of the horn. If it lacks the customary warmth, you may be sure the enemy is making his inroads.

As the time between this, and the growth of vegetation in the spring is that in which cattle are most liable to be affected in this way, it behooves the farmer to examine their condition, and if he finds any of them diseased, forthwith apply the above mentioned remedy, and above all, see that they be favored in respect to food and shelter. He will thus have the double satisfaction of saving himself from loss, and contributing to the comfort of the patient slave that has earned a title to his protection and care, by his toil.

The following from the address of Mr. Proctor, relates to an instrument which we doubt not will ere long be much in use in our country. It will be found especially useful in reclaiming fields exhausted by too much cropping. We have heard of such lands being made to produce a good crop, merely by plowing considerably deeper than had ever been done before. The subsoil plow accomplishes the same object in a better way.

SUBSOIL PLOW AND PLOWING.—"Allow me for a moment, to ask your attention to the subsoil plow, with which I presume you are but little, if any acquainted. Although known for years in Europe, and in some parts of our own country, I am not aware that it has been much used in this county. It is made to follow in the furrow

directly after the common surface plow, loosening and moving the earth to the depth of six or eight inches below the first furrow, without bringing any part of it to the surface. The advantage to be derived from such loosening is, that the superabundant moisture settles down to the bottom of the furrow, and there is a constant operation of the atmosphere, which gradually converts it into productive soil. It thus produces all the benefits of deep plowing, without the disadvantage of the admixture of an undue proportion of unproductive ingredients in the soil. The soil thus moved will afford space for the extension of the roots or fibres of the plants, so that in seasons of drought they will be less likely to fail. And the ultimate consequence will be, if the land is properly manured, an additional depth to the soil—say instead of 6 or 7 inches, there will be found 10 or 12 inches. For root crops, and many others, such an alteration must be of great value. Where this process of subsoil plowing has been tried for a number of years successively, and the subsoil has been gradually mixing with the upper soil, the whole has been found so completely changed as to be capable of producing crops that could not before have been cultivated to any advantage."

Taste in Farming.

While the farmer is devoting his efforts to the primary objects of fertilizing the soil, and ascertaining the best systems of culture, he should never disregard the injunctions of *good taste*, in planning his fields, planting his trees, and otherwise beautifying his premises. Beauty and profit are by no means incompatible in agriculture: they, in fact, go hand in hand. The farm which is laid out with the most skill—which is under the highest culture, and the clearest of weeds, is not only the handsomest, but, at the same time, the most valuable and productive: its products are the purest, and most sought after in the market. As the best stock should be selected for feeding, so should the best plants be cultivated, to feed that stock. The worthless, or less valuable portion, both of animal and vegetable products, should be made to give place to the most valuable. This should be the constant aim and object of the agriculturist, and, like every other earthly good, it is only to be secured by continual vigilance. It must, of course, be gradually attained; but, by perseverance, can certainly be accomplished. The amount of indispensable labor, on farms of a given size, and in similar circumstances, is nearly equal: the difference in their condition and appearance, is the result of skill and taste in the occupants. Our incessant study, then, should be to acquire skill, and to discipline our taste. Every field, when under culture, should look like a garden: and when in grass, should be as clean as a meadow. No worthless weed should be permitted to rear its head—or at least, to mature its blossoms—not even in the lanes, the way-side, or the corners of the fences. The skilful rotation of crops, while it is the most favorable to the production of useful plants, aids powerfully in the extirpation of pernicious intruders.

The first leisure of the young farmer—especially when he has erected a new residence—should be employed in laying out a neat yard and garden, and in planting his fruit and shade trees with appropriate care and taste. That being done the trees and shrubs will be coming on with annual increase of beauty, shade, and produce, to enhance the comforts of his rural home, and so lace the languid hours of age and infirmity. This is a duty which has been sadly neglected, hitherto, in Pennsylvania. It is really distressing to the eye of taste, to witness the number of farm-houses in our ancient commonwealth, which stand exposed, as it were, in the open fields, without a shrub or grass-plot to cheer the inmates, or even so much as a friendly tree to protect them from the glare of the summer's sun. No resident of our naked villages, who has enjoyed a promenade beneath the arching elms which adorn the avenues of New Haven and other eastern towns, can fail to be humbled by the contrast—and to lament the tasteless, cruel negligence, the melancholy want of forecast which has prevailed among our

people. This repulsive feature of barbarism should be no longer tolerated. Every farm should be made a beautiful country seat. Such ornamental seats, instead of interfering with the essential duties of agriculture, tend rather to animate and cheer the labors of every farmer who has a soul susceptible of true enjoyment. The beautiful shade trees which surround the dwelling, as they grow old, become associated with pleasant reminiscences in the family, and exert a delightful moral influence. The children who have grown up and disbanded beneath their spreading boughs, become fondly attached to them, and strongly disposed to guard and preserve them.

Such reminiscences of our purer days deserve to be fondly cherished; and should never be obliterated by the sterner pursuits of after life.—The tasteful arrangement of trees and shrubbery, on a farm, not only conduces to real comfort, but is the surest indication of a gentle, cultivated, and truly civilized people. It demonstrates that boorish rudeness has been superseded by refined feelings, and a just appreciation of the beauties of Nature. How delightful to the toil-worn farmer, in the evening of life, to repose in the shade of the trees which he has planted with his own hands! How grateful to the heir of the paternal mansion, to enjoy the umbrageous shelter provided by the care and taste of his revered progenitor! The shade-tree, thus planted, becomes, as it were, a cherished member of an affectionate family. Its longevity renders it an abiding friend of succeeding generations—a silent but most interesting witness of the advent and departure of children—while its aged trunk remains an emblem and a precious memorial of a long line of venerated ancestry.—*Dr. Darlington's Address.*

Cultivation of the Quince.

Messrs. Editors:—The Quince is but little cultivated, as a useful fruit, in this country; and it is indeed, from some unknown cause to me, greatly neglected wherever it thrives, although the fruit is always in demand, and generally commands a good price. There is no fruit tree I am acquainted with, that requires more, and pays better for, pruning, than the Quince; and there is none, I believe, that receives less, or is more neglected. The Pear, the Apple, the Peach, Cherry, and the many other etceteras, are all cherished, dug around, pruned and trained by the amateur, but the Quince is often left "solitary and alone," by the side of a ditch, with its roots overgrown with grass or rank growing weeds and briars, unpruned and neglected, only when in fruit, and then the good lady of the house has a jealous eye for its golden load, and would sooner be deprived of her best set of China than the crop of Quinces to grace her table, as one of the best preserves; and then every one exclaims—"What a fine preserve the Quince is—how very delicious!" Now, sir, as I am always an advocate for the ladies, and have one present whilst writing, which gives credence to this assertion, I hope this much neglected tree will arrest the attention of the cultivators of the soil, and be pruned and cultivated in connection with other trees of the orchard.

The Quince thrives best in a rich loamy soil, and if planted by the side of a ditch, by the side of a pig-pound, cow-house shed, or such location, it grows or bears well. The tree is increased and propagated by taking the suckers from the mother plant, by layering, and by putting out cuttings in the spring, precisely the same as the Gooseberry and the Currant. Pruning, as I have said before, is essentially necessary, and should be done at the fall of the leaf; the method I adopt, is simply to cut out all the small old branches at the points, and leave all young shoots of the last year's wood, which will be the bearing branches next year; the small old twigs are always unfruitful, and take a portion of the sap from the fruitful ones, and hence the utility of pruning.—The principal object to be kept in view by the pruner, is to cut out a portion of old-bearing wood every year, in order to bring in young shoots for fruiting the succeeding summer, and to keep the tree in regular and uniform shape.

In addition to the usefulness of the Quince as

a fine fruit, the tree answers as an excellent parent stock to graft or inoculate the Pear upon; and perhaps on giving it a fair trial, will evade some of the diseases the Pear stock is subject to, as the fire-blight, &c. The roots of the Quince do not penetrate so deep as the Pear tree into the sub-soil, which perhaps will be traced as an evil to the growth of the Pear in wet weather, as the soil must certainly become cold and saturated at a certain depth, and consequently the root of the tree must be in a colder temperature than the branches.—*Western Farmer and Gardener.*

Yours, E. SAYERS.

Care of Utensils.

In reference to economy in agricultural management, I would here notice a matter of considerable importance, though surprisingly neglected by many farmers; I mean the preservation of agricultural implements. These should never be left exposed to the weather when not in use. Some careless farmers are in the habit of leaving their plows, harrows, rollers, and other utensils, on the grounds where they were last employed—bleaching by the field side, or thrown into the corners of the fence—where they lie rusting and rotting, until required for the labors of the ensuing year. The inevitable result of such negligence, is a set of imperfect, rickety tools, and the necessity of speedily replacing them at an inconvenient expense. The man who thus manages, is sure to go behind hand: his unthrift is soon remarked. His more vigilant neighbors find him a troublesome borrower—first of implements, and then of money—which last, his impaired credit renders it difficult for him to obtain. Such has ever been the career—and such will ever be the destiny of the sloven and the sluggard. By carefully sheltering a good set of farming utensils, I am satisfied from observation and experience, they will endure, in good order, five times longer than when exposed to all the destructive vicissitudes of our climate. The economy of the measure is, therefore, of no mean importance. The saving of capital, as well as the satisfaction of using perfect implements, is worthy the attention of every agriculturist. Every vehicle, tool, and implement, employed on a farm, should be put under cover the moment we have done with it. There should be a suitable place for every thing, and every thing should be in its place, so that we may certainly lay our hands on it when it is wanted, by day or by night.—*Dr. Darlington's Address.*

USEFUL RECIPE.—I send you, below, Messrs. Editors, a recipe for making a composition which will render wood entirely incombustible. It is very simply prepared, and quite easy of application, being used the same as paint, with an ordinary brush. A good coat of it applied to the floor under stoves would be an excellent precaution.

Take a quantity of water proportioned to the surface of wood you may wish to cover, and add to it as much potash as can be dissolved therein. When the water will dissolve no more potash, stir into the solution, first a quantity of flour paste of the consistency of common painter's size; second, a sufficiency of pure clay to render it of the consistency of cream.

When the clay is well mixed, apply the preparation, as before directed, to the wood; it will secure it from the action of both fire and rain. In a most violent fire, wood thus saturated may be carbonated, but will never blaze.

If desirable, a most agreeable color can be given to the preparation by adding a small quantity of red or yellow ochre.—*Buffalo Com. Adv.*

CORN CONS.—The most economical method of disposing of corn cobs, is doubtless to pound them up, and grind them with corn for stock.—But as this is often neglected, another excellent mode of disposal is to soak them in pickle and feed them to cows or other cattle in the yard.—A large tub, formed by sawing a hoghead in two, near the middle, should be placed in a convenient place, near the yard, and being filled with cobs, a sufficiency of warm water, strongly impregnated with common salt, should be poured over them to render them soft and palatable to the stock.

Young Men's Department.

Keep out of Debt!

Let every young man and youth read and remember the following:

"Of what a hideous progeny of ill is debt the father! What lies, what meanness, what invasions of self-respect, what double-dealing! How in due season it will carve the frank, open-face into wrinkles—how, like a knife, 'twill stab the honest heart. And then its transformation! How it has been known to change a goodly face into a mask of brass: the man into a callous trickster! A freedom from debt, and what nourishing sweetness may be found in water; what toothsome-ness in a dry crust; what ambrosial nourishment in a hard egg. Be sure of it, he who dines out of debt, though his meal be a biscuit and an onion, dines in 'the Apollo.' And then for raiment—what warmth in a thread-bare coat, if the tailor's receipt be in the pocket; what Tyrian purple in the faded waistcoat, the vest not owed for; how glossy the well worn hat if it covers not the aching head of a debtor!

Next, the home sweets, the out door recreation of a free man. The street door knockers fall not a knell on his heart; the foot on the stair case, though he live on the third pair, sends no spasm through his anatomy; at the rap at his door, he can crow forth "come in," and his pulse still beat healthfully, his heart sinks not into his bowels. See him abroad! How confidently, yet how pleasantly, he takes the street; how he returns look for look with any passenger, how he saunters, now meeting an acquaintance, he stands and gossips! But then this man knows no debt—debt that casts a drug in the richest wine; that makes the food of the gods unwholesome, indigestible; that sprinkles the banquets of Lucullus with ashes, sort in the soup of an emperor; debt, that like the moth, makes valueless furs and velvets, enclosing the wearer in a fastening prison, (the shirt of Nessus was a shirt not paid for;) debt, that writes upon frescoed walls the hand writing of the attorney, that puts a voice of terror in the knocker; and makes the heart quake at the haunted fireside: debt, the invisible demon that walks abroad with a man, now quickening his steps, now making him look on all sides like a hunted beast, and bringing to his face the ashy hue of death, as the unconscious passenger looks glaucy upon him! Poverty is a bitter drought, yet may, and sometimes with advantage, be gulped down. Though the drinker make wry faces, there may, after all, be a wholesome goodness in the cup. But debt, however courteously it be offered, is the sup of a syrene, and the wine, spiced and delicious though it be, an eating poison. The man out of debt, though with a flaw in his jerkin, a crack in the shoe leather, and a hole in his hat, is still the son of liberty, free as the singing lark above him; but the debtor, though clothed in the utmost bravery, what is he but a serf upon a holiday, a slave to be reclaimed at any instant by his owner, the creditor?

My son, if poor, see wine in the running spring, let thy mouth water at a last week's roll, think a threadbare coat the only wear, and acknowledge a whitewashed garret the fittest housing place for a gentleman. Do this and flee debt. So shall thy heart be at peace and the sheriff be confounded."

Young man art thou in pursuit of a wife? Don't be fascinated by a pair of bright eyes;

ten chances to one there is more fire than affection buried beneath them—neither let rosy cheeks carry captive thy young heart, they may be FAINTED! Be careful of a smooth tongue, and showy appearance, remember if you marry fine clothes it will cost a good deal to keep up appearances. Look for something better than all these: and if you can find a girl neat, good tempered, economical, intelligent and prudent, love her and marry her, if she will have you, no matter if she isn't quite so handsome. Beauty is only "skin deep," and it will neither boil the pot, or bake good bread. If you marry for beauty alone, what will the wife be good for when the beauty's gone?

Mechanics' Department.

The following description of houses, we understand are built to some extent on the prairies of Illinois and other south-western States. They were highly recommended last year by Mr. Ellsworth, the able Commissioner of Patents.

Unburnt Brick Houses.

Houses properly constructed of this material are warmer, more durable, and cheaper than frame, and are destined to take the place of the log shanty, as well as the more expensive wooden walls. They are admirably adapted to the peculiar circumstances of Canadian settlers, as they neither require much skill nor expenditure to erect them. Those who profess to be best acquainted with the subject, are of opinion that they are best calculated for cottages, or buildings that are not designed to be carried higher than fifteen feet. The great difficulty in high walls built with mud brick, is, that the rough casting, or outer coat of plaster, is subject to fall off; the real cause of which has been heretofore overlooked. This falling off proceeds from the fact that the ingredients composing the plaster, are not properly compounded and tempered so as to cause the surface to be impervious to water. By examining plastered walls minutely, there may be seen small apertures, which act as so many receptacles to receive the water. The difference between burnt and unburnt brick is simply this: the one becomes soluted the moment it comes in contact with water, and the other admits the moisture without becoming dissolved. Clay or unburnt brick houses are much more wholesome for either man or beast than either burnt brick or stone, in consequence of their having less affinity to moisture. Burnt brick are extremely porous, and each brick freshly taken from the kiln will admit one third of its weight of water. From these facts, then, it would appear that the only difficulty in the way in bringing mud or unburnt brick houses into general use, is the liability of the plaster to fall off. We feel satisfied that two very successful plans might be practised—the one to build a verandah around the whole building; and the other, by compounding the ingredients which compose the plaster, so as to form a close, solid, and impenetrable surface. A plaster may be formed with an equal proportion of pure clay, sand, ashes, and lime, thoroughly incorporated together, and mixed with a portion of fresh bullock's blood, equal to one half of each of the above ingredients. The blood should be stirred, to prevent it from coagulating.

To those who have already built, and are apprehensive that the plastering exposed to the action of the changes of the weather will

not prove durable, we advise them to make a composition of the following materials, and apply it, while hot, on the outer surface, with a common painter's brush:

To five gallons of water, add five quarts of Liverpool or rock salt; boil and skim; then take six quarts of unslacked lime, slake and sift it, put it into the hot brine; also 1 pound of allum, half a pound of copperas, three quarters of a pound of pearlash—the last to be added gradually; then add four quarts of fine pure sand; mix the whole together, and apply two coats as above. Any coloring matter may be added, to give the shade required. If this process be properly performed, it will make the wall have the appearance of slate, and be remarkably durable.

The mode of making brick is very simple. The first step is to make a clay pit in an oval shape, and fill it with pure clay. Blue is the best, if procurable. As soon as this is done, water should be copiously applied; and after the clay has been saturated with water twenty-four hours, a yoke of oxen may tread or temper it; and, during this operation, short straw must be applied, at the rate of four common bundles to a hundred bricks. The bricks are moulded, quite convenient to the pit, by simply placing the mould on the ground, which should have an even surface, and filling it with the tempered mortar with a common three-pronged fork. By drawing a straight-edge board across the upper surface of the mould, and raising the mould, the brick is formed; which must remain on the spot until it becomes sufficiently dry to turn on its edge. When they are dry enough to move without spoiling the shape, they may be stacked up to season, and should be secured from the wet by broad boards.

In constructing this style of houses, the two following particulars must be invariably observed, viz: The erection of a substantial stone wall, at least two feet above the level of the ground, a hip or cottage roof projecting over each side of the wall not less than thirty inches. Another very important feature is, to have a quantity of bond timber interspersed through the wall, consisting of 1 1/2 inch or 2 inch plank.—*British Am. Cultivator.*

The Arts.

THE POWER OF THE PRESS.—In the year 1272, the wages of a laboring man were just three half pence per day; and at the same period, the price of a Bible fairly written out was £30 sterling. Of course a common laborer in those days, could not have procured a Bible with less than the entire earnings of thirteen years! Now, a beautiful printed copy of the same book can be purchased with the earnings of one day!—Take another view of the subject. An ordinary clerk cannot make a fair manuscript copy of the Bible in less than three months! With a common printing press, work equivalent to printing a copy of the whole Bible, can be done in ten minutes; and with a steam press of the most improved construction, the same work can be done in three minutes.

LONDON MECHANICS.—London employs 16,503 shoemakers, 14,502 tailors, 2391 blacksmiths, 2013 whitesmiths, 5032 house painters, 1076 fish dealers, 2662 hatters and hosiers, 18,208 carpenters, 6822 bricklayers, &c., 5416 cabinet makers, 1005 wheelwrights, 2108 sawyers, 2807 jewellers, 1172 old clothesmen (chiefly Jews,) 3628 compositors, 700 pressmen, 1393 stationers, 2633 watch and clock makers, 4227 grocers.

Ladies' Department.

Moral and Intellectual Culture.

The mother! how much is expressed in that one word. With it is associated all the most tender, refined, and holy feelings of our nature. And who that reflects upon the station she occupies can doubt that a vast accountability rests upon her. Mothers have you pondered the responsibility? When Heaven placed in your possession that infant form, think you not, no fearful responsibility arose from that relation? To sustain the situation which you occupy with innocence and a clear conscience, is a subject of infinite importance to yourself, to your family, and to the community. For it you must answer to God, who imposes the duty.

Does the mother that feels her children are a burden, the cares and labors she must endure for their sake as grievous to be borne, does she fulfil the manifold duties Heaven demands of her? No! with these sentiments and feelings, it is impossible. There is no one thing, in my opinion, in which there is so much wrong, so much contrary to what it should be, as the principles and feelings imbibed by mothers towards their children. I have seen many a mother that appeared to feel justified in considering a family of children as a curse. And why? Because such mothers do not study into the designs and intentions of the Almighty, in instituting the near and dear relation of the mother to her child. They seem not to discern the wisdom and goodness of God—the unbonded mercies and blessings of Heaven, when mingled with the bitter pangs of holy anguish and mental suffering.—Yet the deep fountain of a mother's love will gush forth in constant anxiety, care, and labor, in a sacrifice of almost every ease and comfort for their children. This shows plainly and conclusively, that the mother possesses within her breast, a faithful monitor, which, if adhered to, would direct her not only to provide for their physical wants, but to labor more earnestly and abundantly for their progress in morals, in religion, in that which serves to enlarge the affections for the good and just, and enlighten the mind with the beams of nature's laws and spiritual wisdom.

In that receptacle of anxious care and self denial, affection and tenderness in a mother's heart, there should also reign high moral principle, self-acquaintance, and self-control, and with these a consecration of all else, to the laws and requirements of the gospel.

In a family little can be effected in the cause of mental improvement, unless the parents act in concert. Take a wife that is fretful, worldly, and selfish, and you will soon perceive that all the efforts of the husband are rendered abortive. And, also, if a wife be ever so intelligent and active, if she has a husband whose soul never breathed one aspiration or desire for any greater good or better knowledge than wealth can bestow, how little can she accomplish. But even then I would say, try. Never despair of good. Perhaps the husband or the wife might be induced to overcome the wrong sentiments they have cherished, if they should behold in their companion an example of steady devotion to the intellectual and moral improvement of their children and family.—*New Genesee Farmer.*

Female Education.

"She has finished her education," said my friend. Finished her education? said I, just as though a young lady's education was a stocking, or rather a bonnet, and now it was to be placed in a band-box, to be displayed to visitors, and to be worn only on set occasions. I pretest against the doing up, and finishing off a young lady's education with her teens—just at the time when she begins, if she ever does begin, to think. A young man has just acquired at one-and-twenty the elements of education, and is prepared to study advantageously according to his own discretion; but a young lady has done—finished—the circle of her

sciences is complete; and she is ready for any station in life that may be thrown in her way. Now, why not in the name of common sense may not a woman think? and if she think, why may she not study, and acquire profitable food for thought? There is a lady of whom I have some knowledge, that "finished her education," by having peculiarly good advantages at an early age. She is now a wife, and the mother of six children. She plays well on the piano, sings sweetly, but her husband must, and actually does, put all the children to bed, and has the care of them through the night—and as for her table—the bread is execrable to one who has ever visited her grandmother's pantry, and her coffee—O, her coffee! it would cost her head if it reached the Grand Turk's palace—and yet the lady has a "finished education."

Old Maids.

Some writer has remarked, that "an elderly maiden lady was the month of November embodied." The observation was illiberal and unjust. Many a single lady, "long since past her prime," is still the light and charm of her home and an ornament to society—a summer flower still.

"A few evenings since," wrote a lady to us some years ago, "I visited my friend M. I have seldom seen a happier group than was there assembled. It was a cold, dreary November night; but the closed shutters and heavy curtains excluded all sounds of the storm without, while the bright wood fire and the general appearance of the apartment realized Cowper's beautiful description of domestic comfort. A lady, who is probably forty-five years of age, but who still retains the bloom of health and the smile of cheerfulness, was surrounded by three beautiful girls, apparently from fifteen to twenty years of age, all busy with their needles, while, at a little distance, sat a fine young man, who was reading aloud to them. You will no doubt imagine this a good and happy mother, surrounded by her children. No such thing—the lady to whom they all look with so much respect and affection, and who contributes so largely to the happiness of their domestic circle, is—a maiden aunt."

So our young friends, we trust, will remember, that an old maid need not be a solitary and neglected being if she keeps her heart warm with feelings of kindness, and her hands busy in works of benevolence. But a maiden lady seldom thus proves herself a "ministering angel" when age creeps on, if she has, while young been entirely devoted to fashion and frivolity. As reasonably may we look for May flowers on the sere November stalk.—*Lady's Book.*

Economy and benevolence are fine subjects for displaying one's good sense and good feelings. Many ladies talk beautifully about them; indeed, few women can be found who are not very prudent and charitable—in theory. But let the actual saving, self-denying system become necessary, and it is to many a terribly inconvenient and mortifying affair. So likewise of charity:—there is scarcely a lady in our land but would rejoice to see all suffering and want removed; but their individual efforts will do so little that each one must relinquish her share as hopeless.

Was there ever a person who heard of Aladdin's Lamp, and has not at some time wished to possess it? If we knew the occasions when this power of obtaining wealth has been most eagerly coveted, we should probably find that, nine times out of ten, it has been with the intent of benefiting others, or the hope of diffusing happiness, rather than selfishly enjoying the treasure. The reason why, when wealth is obtained, we do not oftener see it used for noble and benevolent purposes is, not so much that people are selfish, as that they are inconsistent. It is circumstance, that "unspiritual god," which modifies our magnificent purposes, and, in spite of our ardent anticipations, will bring us down to some pitiable conclusion at last.—*Id.*

Id. Silk shawls worth \$25, are manufactured at Richmond, Indiana.

BANK NOTE LIST.

[CORRECTED FOR THE MICHIGAN FARMER.]

MICHIGAN:		Bank of Buffalo	65 dis
F & M B's & Branch	par	Clinton county	30 dis
Bank of St. Clair	par	Watervliet	30 dis
Mich Insurance Co	par	Com bank Buffalo	30 dis
Oakland County Bank	par	Com bank Oswego	30 dis
River Raisin Bank	par	Bank of Lyons	30 dis
Mer B's Jackson Co	par	Bk America, Buff	40 dis
Bank of Michigan	68 dis	Bk Commerce do	45 dis
State Scrip	3 a 4 dis	Bank of Oswego	50 dis
State Warrants	34 dis	Bank of Lodi	20 dis
OHIO:		Binghampton	25 dis
Specie paying banks	par	Cattaraugus county	40 dis
Cleveland	55 dis	Erie do	30 dis
Com bank Scioto	25 dis	Mechan b'k Buffalo	50 dis
"Lake Erie	15 dis	Mer Ex bank do	50 dis
Far bank Canton	60 dis	Miller's bank, Clyde	20 dis
Granville	75 dis	Phoenix b'k, Buffalo	40 dis
Hamilton	25 dis	Tonawanda	dis
Lancaster	30 dis	U. S. bank, Buffalo	35 dis
Mer & Trader's Cin	15 dis	Western New-York	35 dis
Manhattan	90 dis	Staten Island	55 dis
Miami Exp Com	60 dis	Olean	40 dis
Urbana bank's Com	60 dis	Alleghany county	75 dis
INDIANA:		St. Lawrence Stock &	
State bank & bran	1 dis	Real Estate Notes	55 dis
State Scrip	30 dis	Stock Notes	75 dis
ILLINOIS:		State bank, Buffalo	80 dis
State bank	50 dis	Wash'n b'k, N. Y.	10 dis
Shawneetown	50 dis	Union b'k, Buffalo	35 dis
KENTUCKY:		CANADA:	
All good banks	2 dis	All	2 dis
PENNSYLVANIA:		WISCONSIN:	
Specie paying	1 dis	Fire & Marine Insu-	
Erie	2 dis	rance Co, Checks	1 dis
Relief Notes	5 dis	MISSOURI:	
NEW YORK, NEW JERSEY, & NEW ENGLAND:		State bank	2 dis

ALBERT FOSTER,
EDGE TOOL MANUFACTURER,

JACKSON MICHIGAN.

Has opened a New Establishment on Luther Street, immediately in rear of J. SUMNER & Co's store, where he will keep constantly on hand all kinds of

EDGE TOOLS.

of superior workmanship. The Farmers and Mechanics of Central Michigan are informed that he is at all times prepared to furnish or make to order every article in his line of business.

Jackson, July, 1844.

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Wanted,

In exchange for the "Michigan Farmer," or in payment of subscriptions to the same,—Wheat, Corn, Rye, Barley, Oats, Potatoes, Pork, Beef, Butter, Ham, Eggs, &c. &c. &c., for which the highest market price will be allowed, if delivered soon.

JOB PRINTING.

Every description of Letter Press Printing, such as Labels, Waybills, Show Bills, Road Bills, Stage Bills, Pamphlets, Handbills, Checks, Circulars, Ball Tickets, Business Cards, Catalogues, Notes, &c. &c., executed with neatness, accuracy and despatch, at the office of the Michigan Farmer, north side of the Public Square, Jackson.

FARMERS, LOOK AT THIS!

FARMERS are requested to call at **HAYDEN & Co's. Produce Ware-House**, (the first one west of the Rail Road Depot,) where they can sell or the highest price, in cash, any quantity of **WHEAT, GRASS SEED, FLAX SEED, CRANBERRIES, HIDES & SKINS, PORK, LARD, &c.**

You can also buy **Plaster**, (a large lot just received,) **Salt**, new and never exposed to the weather,—**Pine shingles, Leather** of all kinds, **Paints, Oil, Water Lime, Plastering Hair, &c.** at the lowest price for cash, or in exchange for Produce.

Jackson, Sept. 2, 1844.

9-3m

Foster's Improved Patent Pumps.

H. & F. M. FOSTER respectfully inform the public that they continue to manufacture and keep constantly on hand, at their Machine Shop, (on the east side of Grand River, near the Rail Road Depot,) in the Village of Jackson, superior **Pumps** for Wells and Cisterns, made of the best materials, and warranted not to **FREEZE**. These Pumps have been extensively in use in the Eastern States, for 15 years, and the increasing demand for them, is evidence of the general satisfaction they have given.

Jackson, February 15, 1844.

Stoves and Tin Ware.

FARMERS, if you want to buy the best kind of **STOVES** and **TIN WARE**, call at **BARRETT'S Tin & Stove Store**,—where you can get the best, cheap as dirt, for Cash or ready pay. **Id.** Sign, Washington's likeness, made of cast iron.

W. F. BARRETT.

Jackson, October 1844.

Miscellaneous

Individual Effort.

Every thing is accomplished by it—no great reform or plan for the improvement of mankind was ever originated and carried forward, save by individual effort. The masses never start up in a body and adopt this or that mode of reform, moral or political—there must be a pioneer, a leader, one to start the thing; and after him many more to put their shoulders to the work *individually*. When impressed with the truth of a thing, we should not wait for our neighbor or neighbors to think as we do, before putting our thoughts in practice—we should go right about it, do as we think is just and right, regardless of the opposition and sneers of those whose habits and prejudices run counter to it, remembering that "example is better than precept," and that "actions speak louder than words."

Many people, however deeply the necessity of reform or improvement may be felt by them, have not the courage to encounter difficulties by acting up to their sense of right, especially if the sense of right be opposed to the habits and prejudices of those around them. What can I do they say, (or think,) with so many opposed to me? But in this they make a great mistake—millions are counted by beginning with an unit, and by individual effort the most stupendous undertakings are carried forward to successful issue. In political matters, we are frequently told of how much has been accomplished by a single vote, and the fact has been over and over again proved that the most simple and apparently unimportant act of our lives has exerted the greatest influence, not only over them, but on the destinies of others. We cannot calculate the amount of good or evil that flows from the neglect or use of individual effort. Often times the neglect of doing what we know to be right, is productive of more evil than a positive wrong. We are therefore called upon to do whatsoever our reason teaches us to be right, as well as to abstain from what we know to be wrong.

Every man should feel that he is individually responsible for his acts, and that because others do what his judgment teaches him to be wrong, it is no excuse for him supinely to follow in their track. Every man should think for himself, and so thinking should act. In political matters, his vote should be given according to the dictates of his judgment, regardless of how others vote around him—it is his privilege, the sign of his freedom, and he knows not how much, in the aggregate, may depend upon this individual exercise of his will. In morals, in religion, it is the same. The individual is accountable, and he should never forget the responsibility that attaches to him, or fancy that the humbleness of his situation in life deprives him of the rights and privileges of manhood, or exempts him from a performance of the duties belonging thereto. In a moral or political point of view, we are all equal, and the most important results may (and more frequently do) hinge upon the actions of a poor man, as well as upon those of his richer neighbor. Let us never forfeit our independence and manhood by supineness or fawning, or forget how much may be accomplished by individual effort.—*Boston Bee*.

A GOOD LAW.—Among the ancient Romans there was a law kept inviolably, that no man should make a public feast except he had before provided for all the poor of his neighborhood.

Borrowing.

"The borrower is a servant to the lender."—Prov. 22. 7.

Whilst every man who borrow's much, feels the truth of this adage, how many still, persist in the practice of borrowing. Why, I know several farmers who are doing business on a right large scale, who borrow the plough which breaks their fallow—the harrow which levels it—the bag which conveys their seed wheat to the field—the cradle which cuts the crop—the wagon which hauls it to the barn—the wheat-fan which cleans it, and then again the wagon which takes it to market. While the borrower is therefore, in some sense, servant to the lender, Solomon might have added that he is a most "unprofitable servant." For whilst he lays himself under daily and heavy obligations to the lender, which may well be likened to a state of bondage, he distresses, incommodes and injures the lender to such a degree that it is sometimes hard to tell which will come to poverty soonest. A good farmer will not only provide himself with all the necessary implements of his business, but will try to keep them at all times in good order and in their proper places. You will see his ploughs and harrows and wagons and carts and cradles and mowing scythes and axes and hoes, and all the rest snugly housed and sheltered whenever not in actual use, so that whenever the time comes for using them, there they are, easy to find and in good condition. If he is a free lender, and is annoyed with borrowing neighbors, his plough, when he wants it, is at neighbor Dolittle's—his harrow at neighbor Scratchall's—his wagon not yet returned from neighbor Longkeep's—often he forgets who has borrowed them, and when he finds them, they are broken, abused and out of order; such is the fate of the lender. The borrower is no better off, for if he has so little pride as to be able to bear the mortification of his constant dependence upon others, he is still the loser in the end, for in running about to borrow and to return the articles (if he takes the trouble) time is lost—precious seasons are often lost, his crops are put in late, and every thing works badly. I never knew a man who borrowed much who did not break.

—*Valley Farmer*. A LENDER.

MILK.—Milk is a perfect food for a growing animal, containing the curd which is to form the muscles, the butter which is to supply the fat, the phosphates which are to build up the bone, and the sugar which is to feed the respiration. Nothing is wanting in it. The mother selects all the ingredients of this perfect food from among the useless substances which are mingled in her own stomach with the food she eats—she changes these ingredients chemically in such a degree, as to present them to the young animal in a state in which it can most easily, and with least labour, employ them for sustaining its body—and all this she begins to do at a given and appointed moment of time. How beautiful, how wonderful, how kindly provident is all this!—*Johnston*.

MANY choose their friends for the sake of their purses, rather than their full hearts.—They forget that a full purse may soon be exhausted by frequent demands upon it, while the more a full heart gives away its treasures, the oftener it is replenished. We shall find the strings of the heart and strings of the purse both tightened in the hour of adversity; the former around us—the latter around itself.

CRANBERRIES.—Cultivated cranberries were exhibited by S. Bates, Billingham, Norfolk Co., Mass., grown on his own land. He states that "low meadow land is best for them, prepared in the first instance in the same manner as for grain. The wild cranberry is transplanted into this in rows 20 inches apart. At first they require a slight hoeing, afterwards they spread and cover the field, producing crops annually thereafter without further culture. In this condition they produce much larger and finer fruit than in their wild state, the yield being from 200 to 300 bushels per acre, worth on an average in the Boston market at least one dollar per bushel. A damp soil, or when wet predominated, has generally been considered necessary, but Mr. Bates thinks this not essential to their successful cultivation: any soil, unless when inclined to bake will answer. Early in the spring, is the best time for transplanting."—*American Agriculturist*.

TO MAKE GOOD BREAD.—To make good bread, good flour, good yeast, and good management are required. One of the simplest processes of making it is as follows: To 3 quarts of flour, add 3 ounces of salt, 1½ pint of yeast, and 3 quarts of water, of moderate temperature, and the whole being well mixed and kneaded, and set by in a proper temperature, will rise in about an hour, or a little more. It will rise better and more equally if the mass be covered. It must undergo a second kneading before formed into loaves for the oven. The more bread is kneaded, the better it will be. Be careful not to allow it to become sour in rising. Milk will make white bread, but it will not be sweet, and dries quicker than when made with water. If loaves are lightly gashed with a knife around the edges before they are put into the oven, cracking will be avoided in baking. From an hour to an hour and a half is required to bake bread fully.—*American Agriculturist*.

Market Intelligence.

JACKSON, February 1.

GRAIN—Wheat is worth 62½ a 65 cents; Corn 31½; Oats 16 a 18; Barley 37½; Rye 31½ a 37½.
FLOUR, per bbl., \$3.50.
PROVISIONS—Pork \$3 a \$3.25; Butter 15c; Lard 10 cts; Eggs 12½; Beans 75c; Tallow 8 cts.
DRIED APPLES are worth \$1.50 per bushel.
HIDES—Green, \$3; dry, \$6.
BEESWAX is worth 25 cents.

NEW YORK, Jan. 24, 1845.

ASHES—Small sales of Pots continue to be made at \$4. Pearls are held at \$4 18½. Some holders are asking \$4 25.
FLOUR—Nothing of consequence doing. Western Canal is firm at \$4 75.

JACKSON COUNTY MUTUAL FIRE INSURANCE OFFICE,

JACKSON, January 15th, 1845.

NOTICE is hereby given that an assessment of seven per cent. upon the amount of each premium note was made by the Board of Directors of this Company, on the fifteenth day of January, 1845, and that if any member shall fail to pay the amount so assessed upon his premium note before the twenty-second day of March next, he will, together with his surties, become liable to pay the full amount of such note with costs of suit. B. M. SHELDON, Sec'y.

PRINCE'S LINNEAN BOTANIC GARDEN AND NURSERIES, FLUSHING, L. I., NEAR NEW-YORK.

THE new and unrivalled descriptive catalogues of this Establishment, (34th edition,) which have cost over \$700, comprising this great and select collection of Fruit and Ornamental Trees, Shrubbery and plants: Splendid new dahlias; Bulbous flower roots; Greenhouse Plants and Seeds, with prices greatly reduced, and directions for their culture, will be sent gratis to every post paid applicant. The errors in the Catalogues of others, are set right in these: which by scientific Horticulturists have been pronounced superior to any that has appeared in any country. Orders per mail, will be executed with despatch, and in a superior style, and forwarded as directed. WILLIAM R. PRINCE & CO.